IN THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Previously Presented) A method of dynamically establishing restorable paths in an information network in response to arriving traffic requests, the network having a number of nodes and links between corresponding pairs of nodes, comprising:

receiving requests at a first node of the network for transmission of traffic to a second node of the network, wherein a given request specifies a desired transmission bandwidth for an active path and a backup path to be established between the first and the second nodes;

distributing information to nodes in the network concerning (a) total bandwidth reserved by each link in the network for all active paths currently defined in the network, and (b) total bandwidth reserved by each link in the network for all backup paths currently defined in the network;

identifying potential active links in the network for an active path in response to a given request, wherein the potential active links each have an available bandwidth at least equal to the bandwidth specified by the given request;

identifying potential backup links in the network for a backup path for restoring the active path after the given request has arrived, wherein the potential backup links each have an available bandwidth at least equal to the desired transmission bandwidth specified by the given request; and

formulating an active and a backup path for each given request from among the potential active links and the potential backup links identified in response to the given request.

2. (Original) The method of claim 1, including determining the available bandwidth of a potential backup link having a certain total bandwidth capacity, by subtracting from the total bandwidth capacity (a) the total bandwidth reserved by the link for all current active paths through the link, and (b) the total bandwidth reserved by the link for all current backup paths through the link.

3. (Previously Presented) The method of claim 1, including defining each backup path in the network to be link disjoint from its corresponding active path.

4. (Previously Presented) The method of claim 1, including defining each backup path in the network to be node disjoint from its corresponding active path.

5. (Previously Presented) A method of dynamically establishing restorable paths in an information network in response to arriving traffic requests, the network having a number of nodes and links between corresponding pairs of nodes, comprising:

receiving requests at a first node of the network for transmission of traffic to a second node of the network, wherein a given request specifies a desired transmission bandwidth for an active path and a backup path to be established between the first and second nodes;

selecting active links in the network to form the active path in response to a given request, wherein the active links each have an available bandwidth corresponding to the bandwidth specified by the given request; and

selecting backup links in the network to form the backup path for restoring the formed active path after the given request has arrived, by using a maximum total bandwidth reservation among the active links selected to form the active path to determine a required bandwidth reservation for each backup link selected to form the backup path.

6. (Presently Presented) The method of claim 5, including:

distributing information to nodes in the network relating to (a) total bandwidth reserved by each link in the network for all active paths currently formed in the network, and (b) total bandwidth reserved by each link in the network for all backup paths currently formed in the network.

7. (Previously Presented) The method of claim 5, including determining if each potential backup link for the backup path to be formed is capable of accommodating the required bandwidth reservation for the active path prior to selecting the potential backup link.

8. (Previously Presented) The method of claim 7, wherein said determining step includes comparing the total bandwidth reserved by each potential backup link for all current backup paths in the network, with the required bandwidth reservation for the backup path to be formed.

9. (Previously Presented) The method of claim 5, including defining each backup path in the network to be link disjoint from its corresponding active path.

10. (Previously Presented) The method of claim 5, including defining each backup path in the network to be node disjoint from its corresponding active path.